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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,418	05/23/2001	Eddie L. Chang	N.C. 79,764	8463

26384 7590 09/27/2005

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EXAMINER

PASTERCZYK, JAMES W

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/862,418

Applicant(s)

CHANG ET AL.

Examiner

J. Pasterczyk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19-31 is/are pending in the application.
- 4a) Of the above claim(s) 21-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-17 and 19-31 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. This Office action is in response to the amendment filed 7/4/05 and refers to the Office action mailed 1/7/05.

2. Claims 1-17, 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, l. 1-2, "for the aqueous phase hydrolysis of phosphate or phosphono or phosphoro groups" is merely aspirational, functional intended use language and thus not limiting. In the following two clauses it is not clear what the connective relationship is among the functionalized support, the chelator, and the metal ion, particularly since functionalization of the support may be identical to simply having the chelator bonded to a support, or the functional group bonds to the chelator with the metal then bonded to it, or the functional group bonds to the metal with the chelator then bonded to it and not having any bonds itself to the support or the functional group.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 6, 7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by F.M. Menger et al., J. Am. Chem. Soc., 1989, vol. 111, pp. 4903-4907 (hereafter referred to as Menger).

Menger discloses the invention as claimed (p. 4904, scheme 1; p. 4907, structure top right of page).

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5. Claims 1, 2, 4, 6, 7, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hammond et al., J. Appl. Poly. Sci, vol. 43, pp. 1925-1931 (1991) (hereafter referred to as Hammond).

Hammond discloses the invention as claimed (synopsis; structure on p. 1926).

6. Claims 1, 2, 4, 6, 7, 10, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Singh et al., Mat. Res. Soc. Symp. Proc. Vol. 501, pp. 199-207 (1998) (hereafter referred to as Singh).

Singh discloses the invention as claimed (abstract; scheme 1 of p. 201).

7. Claims 1, 2, 4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Soviet Patent 0804646 (hereafter referred to as USSR).

USSR discloses the invention as claimed (abstract; figure).

8. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Masters et al., USP 4,533,651 (hereafter referred to as Masters).

Masters discloses the invention as claimed (col. 2, l. 1-39; col. 3, l. 62 to col. 4, l. 31; example 2).

9. Claims 1-4, 6, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sielcken, USP 5,620,938 (hereafter referred to as Sielcken).

Sielcken discloses the invention as claimed (col. 2, l. 8-45; examples 1 and 2).

10. Claims 1-4, 6, 7, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ying et al., USP 6,028,025 (hereafter referred to as Ying).

Ying discloses the invention as claimed (abstract; figure 1; col. 3, l. 35-39; col. 7, l. 49-62; col. 8, l. 14-24; example 2).

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11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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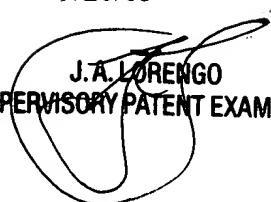
system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Pasterczyk

AU 1755

9/20/05



J.A. LORENGO  
SUPERVISORY PATENT EXAMINER